

**WHAT IS CLAIMED IS:**

1. A method for automatically reducing noises in an earphone using an audio transceiver; the audio transceiver including an audio transmitter, an audio auto-adjusting module, an audio amplifying module, an audio  
5 detecting and receiving module, a power set and an manual adjusting button; the method comprising the steps of:

receiving external interference audio signals in the audio detecting and receiving module of the audio transceiver;

generating mixing frequency signals in the audio auto-adjusting  
10 module; the mixing frequency signals having frequencies near the frequencies of the external interference audio signal; a phase difference of about 180 degree from the interference audio signal and amplitudes approximately equal to those of the external interference audio signals;

transferring the mixing frequency signals to the audio amplifying  
15 module for amplifying the mixing frequency signals; and

transmitting the amplified mixing frequency signals by the audio transmitter so as to cancel the external interference audio signals.

2. The method for automatically reducing noises in an earphone as claimed in claim 1, wherein the manual adjusting button serves to adjust  
20 the mixing frequency signals emitted from the right or left ears so as to balance the sound pressures in the two ears of the user.

3. The method for automatically reducing noises in an earphone as claimed in claim 1, wherein the audio detecting and receiving module serves to receive external interference audio signals.

25 4. The method for automatically reducing noises in an earphone as claimed in claim 1, wherein the output signals from the audio transmitter has a frequency capable of canceling the external interference audio signals.

5. The method for automatically reducing noises in an earphone as  
30 claimed in claim 1, wherein the manual adjusting button is at one side of the earphone for adjusting the output signals from the audio transmitter so

that the output signals serve to cancel the sound waves and reduce noises in the earphone.